



NETWORKS FAQ

Q How do voice-over IP (VoIP) services work?

A Rather than routing phone calls over the Public Switched Telephone Network (PSTN), VoIP uses the internet. It requires a broadband internet connection. If you sign up for a VoIP service, you get an adaptor into which you plug your telephone; this lets you make calls over the internet. You also get a new telephone number in addition to your existing one.

When you make a call, dialling a number in the normal way, the number is checked to see if it is one of your provider's. If it is, the call is sent for free over the internet; you don't pay a penny for it, no matter where in the world you are calling. If the number isn't one of your service provider's, the number has to be located. The call is sent over the internet to that country and transmitted to a telephone exchange close to the number. The call is converted from VoIP, and sent over the normal PSTN to the number you dialled. Incoming telephone calls are sent over the PSTN until they reach your VoIP provider, which converts the call into a VoIP one and 'calls' your phone over the internet.

Currently you get free worldwide calls only with people who have the same provider as you, but you can expect this to change as the technology advances. Meanwhile, look for a provider that offers the cheapest calls to the places you want to dial.

david@computershopper.co.uk

HOTLIST WIRELESS ROUTER

BUFFALO AirStation G54 High Power

RATING ★★★★★

PRICE £67 inc VAT

SUPPLIER <http://uk.insight.com>

DETAILS www.buffalo.co.uk

Buffalo's High Power router uses brute force signal strength to give the fastest and longest wireless transmission we've seen. The router provides a speed boost to all devices on the network. The management interface is one of the easiest we've used, and the router is very well priced. An excellent choice.

SPECIFICATIONS 802.11g wireless router (125Mbit/s turbo mode), four-port Ethernet switch, ADOSS. Part code WHR-HP-G54



REVIEW VOIP PACKAGE

FREETALK Freetalk

RATING ★★★★★

PRICE £80 a year or £6.99 monthly inc VAT

SUPPLIER Freetalk

DETAILS www.freetalk.co.uk



Voice-over IP (VoIP) technology is fast becoming the best way to get cheap phone calls (see our FAQ, left, for details). One of the latest vendors of VoIP technology is Freetalk, which is operated by the people behind Dixons and PC World. The Freetalk service consists of an Ethernet router that works with your broadband internet service.

Setting up the service with a Belkin Ethernet ADSL modem was quick and painless. Unlike other VoIP services, Freetalk doesn't need a special IP telephone. Instead, you just plug your existing phone into the supplied router. Call quality is indistinguishable from that of an ordinary landline. We found talking on the phone while downloading large files was possible without any appreciable loss in call quality or download speeds.

Call rates are competitive, with free calls to UK landlines and calls to US landlines and mobiles costing two pence a minute. Calls to Freetalk users all over the world are free but, as with other VoIP services, not to people on different VoIP networks.

Services such as caller ID, call forwarding, barring international calls and voicemail are



provided free. You can also choose your area code when your first set up your Freetalk account. Certain features, such as having voicemail messages forwarded to your email account as an attachment, are not yet available, though. The web interface for managing your account features is clear and logical, but isn't as feature-packed as Vonage's service.

The downside is that Freetalk recommends you have another phone line, since 999 operators are unable to trace a Freetalk number in an emergency due to the nature of VoIP technology. Other than that, Freetalk is a great-value option if you make a lot of phone calls or just want another phone line.

Alan Lu

✓ Competitive call rates; low subscription fees; easy to set up and use

✗ You still need a standard phone for 999 calls

SPECIFICATIONS VoIP package with router (two Ethernet ports, one phone port); landline calls free, mobiles 5p to 15p/min, Freetalk-to-Freetalk calls free. Requires a broadband internet connection

REVIEW NETWORK CAMERA

HAWKING PTZ Network Camera

RATING ★★★★★

PRICE £438 inc VAT

SUPPLIER www.dcsplc.co.uk

DETAILS www.hawkingeurope.com

Just about any webcam can be set up to monitor a location and send emails when movement is detected. However, you need a PC within USB range to do it. Hawking's PTZ Network Camera can do it all from a distance over an Ethernet network.

It's externally powered, and comes with a remote control that lets you rotate and tilt it using its motors. There are several ways you can interact with the camera. The easiest way is to use the web interface; you can view footage and sound, pan and tilt the camera and use its 10x optical zoom.

Hawking provides its own monitoring software. You can add as many cameras as you like, although this involves manually typing in its IP address, which is a shame as the separate network setup tool scans the network automatically and finds all Hawking cameras. It would have been handy to have this tool in the monitoring package.

Cameras have a range of configuration options. These include motion detection windows, which email alerts to you, automatic panning, and auto patrol, where the camera moves through a range of points. All this data is stored on the camera, so you won't need a really powerful monitoring PC, as the cameras do all the grunt work.



Footage can be recorded and played back in the playback software by selecting the date and time of the footage. There's the usual range of options to email when an event is triggered, so you're alerted immediately. Finally, there's free membership to the service at www.hostedvideo.com, so you can do the same thing online; you have to pay a monthly charge, though.

The PTZ Network Camera is too expensive for home users, but if you're looking for a reliable, quality IP security camera, this is good value.

David Ludlow

✓ High-quality camera; highly configurable

✗ Monitoring software should be able to scan network for suitable cameras

SPECIFICATIONS 10/100 Ethernet interface, 10x optical zoom, MPEG4/MJPEG video recording, motion detection, two-way audio, 352x240 image resolution at 30fps (704x480 at 15fps), 270 degrees pan, +90/-45 degree tilt. Part code HNC800PTZ